

AMENDMENTS TO THE SPECIFICATION:

Please amend page 21, beginning at line 23 as follows:

~~About Claims 1 to 7~~

Firstly, a diffusion film (film(1)) according to ~~Claims 1 to 3~~ a first embodiment will be described.

Please amend page 30, beginning at line 1 as follows:

Subsequently, the diffusion film (film (2)) ~~stated in Claims 4 to 5~~ of a second embodiment will be described.

Please amend page 43, beginning at line 17 as follows:

Subsequently, diffusion film (film (3), film (4), and film (5)) ~~stated in Claims 6 to 7~~ of a third embodiment will be described. They have a structure in which the structure of the film (1) and the structure of the film (2) are combined.

Please amend page 44, beginning at line 18 as follows:

~~Claims 8 to 16~~

Subsequently, ~~Claims 8 to 16~~ a fourth embodiment will be described.

Please amend page 48, beginning at line 19 as follows:

All the drawings and analysis disclosed ~~in Claims 8 to 16~~ with respect to the fourth embodiment show examples in which the remaining portion 2_x having no layer formed therein exists. However, it is a portion which does not contribute directly to the light-outgoing direction converting property, and hence the light-

outgoing direction converting property can be brought out also by the structure having no remaining portion 2_x or having the same only on one side. This case can also be considered to be the same by considering the propagation of the light in the layers and calculating the refraction in the remaining portion 2_x when going out therefrom as in the case of an analysis shown below. Although the cross-section of the remaining portion 2_x in the direction of the layer thickness is a triangular shape and one side thereof is assumed to be an air interface of the film in the drawings, it can be considered to be the same even when it has other structure from the same reasons (for example, when the remaining portion 2_x is significantly large and there exists partly an range having no layer in the direction of the film thickness).

Please amend page 50, beginning at line 20 as follows:

Although the diffusion film to be used in combination with the light-outgoing direction conversion film is not specifically limited, the diffusion film used in ~~Claims 1 to 7~~ the first through third embodiments is preferable.

Please amend page 51, beginning at line 9 as follows:

The light-outgoing direction converting/diffusing film corresponds to the diffusion film ~~used in Claims 1 to 7~~ of the first through third embodiments with the optical waveguides therein curved.

Please amend page 52, beginning at line 15 as follows:

In the screen of ~~Claims 8 to 14~~ the fourth embodiment, the thickness of the respective layers forming the optical waveguides in the light-outgoing direction converting film or the light-outgoing direction converting/diffusing film is preferably smaller than 500 μm considering the size of pixels of the image projected by the general projection display, since images of high resolution cannot be propagated when it is too large.

Please amend page 53, beginning at line 4 as follows:

When constituting the optical system for projection display system using the screen of ~~Claims 8 to 14~~ the fourth embodiment, matching of an aperture (= Numerical Aperture: abbreviated as NA) with the optical engine is important. The NA of the optical engine is defined as $\text{NA} = \sin\theta_2$ where the angular range of a light beam incoming from behind the screen determined by the lens diameter, the focal length, the image-forming magnification, and the image-forming position of the optical engine 20 is assumed to be $2\theta_2 (= 2 \times \theta_2)$ as shown in Fig. 22 relating the case of the rear projection display, for example.

Please amend page 82, beginning at line 18 as follows:

Subsequently, a method of manufacturing a diffusion film used in ~~Claims 1 to 7~~ the first through third embodiments will be described.

Please amend page 84, beginning at line 5 as follows:

Subsequently, a method of manufacturing a film having a curved waveguide array structure used in ~~Claims 8 to 14~~ the fourth embodiment of the present invention will be described.

Please amend page 85, beginning at line 12 as follows:

By soaking the film in an organic solvent to soften and applying a physical force to curve the waveguide structure which has not been curved, the film having a curved waveguide array structure used ~~Claims 8 to 16~~ in the fourth embodiment of the present invention is obtained. The organic solvent may be of any type as long as it can soften the film without impairing the structure of the waveguide of the film.

Please amend page 85, beginning at line 20 as follows:

The diffusion film used in a first embodiment corresponds to the film (1), and as shown in Fig. 20, it is divided into the incident side portion and the outgoing side portion in structure. In the incident side portion is formed of layer array which corresponds to the optical waveguide of the step index type, in which the difference between the refractive indexes n_1 and n_2 of the two types of layers laminated alternately in the y-direction is relatively small, and fluctuations in the layer inclination angle is large. On the other hand, the outgoing side portion is formed of layer array which corresponds to the optical waveguide of the step index type in which the difference between the refractive indexes n_1 and n_2 of the two types of layers laminated alternately in y-direction is relatively large, there

are little fluctuations in the layer inclination angle, and the layer inclination angle is -3° with respect to the normal line to the film. The diffusion film has values $y_{\max} = 4\mu\text{m}$ and $L = 300\mu\text{m}$, which satisfies the requirement ~~in Claim 3,~~ ($L \geq 10 \times y_{\max}$).

Please amend page 94, beginning at line 10 as follows:

In a fourth embodiment, a detailed example of a design in which the NA matching between the light-outgoing direction converting film and the optical engine is performed in the case in which the screen ~~corresponding to Claim 8~~ (the light-outgoing direction converting film of the step index type + diffusing film) is applied to the actual thin-type rear projection display system shown in Fig. 33.

Please amend page 97, beginning at line 10 as follows:

In a fifth embodiment, a detailed example of a design in which the NA matching between the light-outgoing direction converting film and the optical engine is performed in a case in which the screen ~~corresponding to Claim 9~~ (gradient index type light-outgoing direction converting film + diffusing film) is applied to the thin-type rear projection display system which is the same as in the fourth embodiment will be described.